

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-22 are pending in the application, with 1, 7, 13, 17, and 20 being the independent claims. Claims 21-22 are sought to be added. Claims 1-20 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections Under 35 U.S.C. § 102

Claims 1, 3-7, 9-13, 15-17, 19, and 20 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,834,079 to Strait *et al* (herein "Strait"). Applicant respectfully traverses this rejection.

With respect to claims 1 and 17, the Office Action appears to rely on Col. 4, line 67 through Col. 5, line 3 of Strait to allegedly teach an extension of length M samples and "the transversal equalizer targets a target impulse response having N *taps* where N and M are integers and $N < (M+1)$." Applicant's claims 1, 17. (Emphasis added). This section of Strait reads:

[p]referably, the *length* of the filter B(z) 150 is selected to match the *length* of the cyclic prefix defined in the ANSI Standard T1.413. The filter 1-A(z) 154 is an adaptable TEQ filter that shortens the transmission medium response *length* to the response *length* of B(z) 150. Strait, Col. 4, ln. 67 - Col. 5, ln. 3 (Emphasis added).

Strait does not teach a *number of taps* (N) that is dependent ($N < (M+1)$) on a number of samples (M) in a received cyclic extension. A filter's length and that filter's

number of taps are not identical characteristics. The number of a filter's taps is independent of that filter's length. Accordingly, Strait does not teach each and every feature of Applicant's claims 1 and 17 and therefore does not anticipate claims 1 and 17.

Furthermore, the Office Action appears to rely on figure 2 of Strait to allegedly teach the features of amended claims 7, 13 and 20. However, Strait does not teach "*delaying the multitone signal*" and targeting an "*impulse response having N samples of the delayed multitone signal*" as found in Applicant's amended claims 7, 13 and 20. (Emphasis added). Accordingly, Strait does not teach each and every feature of Applicant's claims 7, 13 and 20, and therefore does not anticipate claims 7, 13 and 20.

Furthermore, dependent claims 1, 3-7, 9-13, 15-17, and 19, which depend upon their respective independent claims 1, 7, 13, and 17 are thus allowable for at least being dependent from an allowable independent claim, in addition to their own respective features.

Accordingly, Strait does not teach each and every feature of Applicant's claims 1, 3-7, 9-13, 15-17, 19, and 20 and therefore does not anticipate these claims. Therefore, Applicant respectfully requests the rejection under 35 U.S.C. § 102(e) be removed and these claims be passed to allowance.

Rejections Under 35 U.S.C. § 103

On page 3 of the Office Action, claims 2, 8, 14, 18, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Strait in view of U.S. Patent No. 6,088,386 to Spruyt *et al* (herein "Spruyt"). Applicant respectfully traverses this rejection and respectfully requests this rejection be removed and these claims be passed to allowance.

Applicant's amended claim 20 recites in part:

delaying the multitone signal; and
adjusting the filter coefficients so that the combined effect of the channel
and the finite impulse response filter on the multitone signal targets a
target impulse response having N samples *of the delayed multitone signal*,
wherein N and M are integers and $N < (M+1)$. (Emphasis added).

Applicant respectfully submits that neither Strait nor Spruyt, alone or in combination, teach, suggest, or disclose "*delaying the multitone signal*" and/or targeting "a target impulse response having N samples *of the delayed multitone signal*" as recited in independent claim 20. Specifically, figure 2 of Strait shows a direct connection between the transmitter 102 and the target impulse response filter 150 *without a delay* as recited in Applicant's claim 20. Spruyt alone does not overcome this deficiency of Strait. Specifically, Spruyt does not teach, suggest, or disclose delaying the signal, much less adjusting the filter coefficients based on a delayed signal, as recited in Applicant's claim 20.

Therefore, because neither Strait nor Spruyt, alone or in combination, teach, suggest, or disclose all of the recited claim limitations of independent claim 20 for at least the reasons herein, a *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully request this rejection be removed and that these claims be passed to allowance.

Dependent claims 2, 8, 14, and 18, which depend upon their respective independent claims 1, 7, 13, and 17, are allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Accordingly, Applicant respectfully requests this rejection be removed and that these claims be passed to allowance.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Date: May 15, 2006

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